

FEATURES & SPECIFICATIONS

INTENDED USE — The BLT Best-in-Value Low Profile LED luminaire features a popular center basket design that offers a clean, versatile style and volumetric distribution. High efficacy LED light engines deliver energy savings and low maintenance compared to traditional sources. An extensive selection of configurations and options make the BLT the perfect choice for many lighting applications including schools, offices and other commercial spaces, retail, hospitals and healthcare facilities. The low profile BLT design (2-3/8") also makes it an excellent choice for renovation projects.

CONSTRUCTION — BLT enclosure components are die-formed for dimensional consistency and painted after fabrication with a polyester powder paint for improved performance and protection.

The reflector is finished with a high reflective matte white powder paint for improved aesthetics and increased light diffusion.

End plates contain easy-to-position integral T-bar clips for securely attaching the luminaire to the T-grid. For additional T-grid security, optional screw on T-bar clips are available.

Diffusers are extruded from impact modified acrylic for increased durability.

LED boards and drivers are accessible from the plenum.

OPTICS — Volumetric illumination is achieved by creating an optimal mix of light to walls, partitions and vertical and horizontal work surfaces — rendering the interior space, objects and occupants in a more balanced, complimentary luminous environment. High performance extruded acrylic diffusers conceal LEDs and efficiently deliver light in a volumetric distribution. Four diffuser choices available - curved and square designs with linear prisms or a smooth frosted finish.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. 80% LED lumen maintenance at 60,000 hours (L80/60,000). Color Variation within 3-step MacAdam ellipse (3SDCM).

Non-Configurable BLT: Generic 0-10 volt dimming driver. Dims to 10%

Configurable BLT: available in High Efficiency (HE) versions for applications where a lower wattage (over the standard product) is required. The High Efficiency versions deliver >130 LPW and can be specified via the Lumen Package designations in the Ordering Information below.

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Optional integrated nLight® controls make each luminaire addressable - allowing them to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Connection to nLight is simple. It can be accomplished with integrated nLight AIR wireless RIO, RES7 sensors, or through standard Cat-5 cabling. nLight offers unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission. nLight AIR is commissioned easily through an intuitive model app.

Lumen Management: Unique lumen management system (option N80) provides on board intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Driver disconnect provided where required to comply with US and Canadian codes.

SENSOR — Integrated sensor (individual control): Sensor Switch MSD7ADCX ((Passive infrared (PIR)) or MSDPDT7ADCX ((PIR/Microphonics Dual Tech (PDT)) integrated occupancy sensor/automatic dimming photocell allows the luminaire to power off when the space is unoccupied or enough ambient light is entering the space. See page 4 for more details on the integrated sensor.

Integrated Sensor (nLight Wired Networking): This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software. See page 4 for the nLight sensor options.

Integrated Smart Sensor (nLight Air Wireless Platform): The RES7 sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is available with an automatic dimming photocell, and either a digital PIR or a microphonics (PDT) dual technology occupancy sensor. It pairs to other luminaires and wall switches through our mobile app, CLAIRITY, which allows for simple sensor adjustment. See page 4 for more details on the Integrated Smart Sensor.

INSTALLATION — The BLT's low profile design of only 2-3/8" provides increased installation flexibility especially in restrictive plenum applications. The BLT fits into standard 15/16" and narrow 9/16" T-grid ceiling systems.

Suitable for damp location.

For recessed mounting in hard ceiling applications, Drywall Grid Adapters (DGA) are available as an accessory. See Accessories section.

LISTINGS — CSA Certified to meet U.S. and Canadian standards. IC rated.

DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Catalog Number
Notes
Type

BLT Series LED



2BLT

2' x 2'
LED



eldoLED

nLIGHT



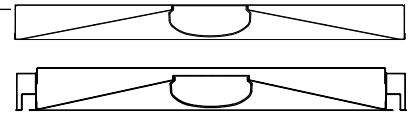
Specifications

Length: 23-3/4 (60.3)

Width: 23-3/4 (60.3)

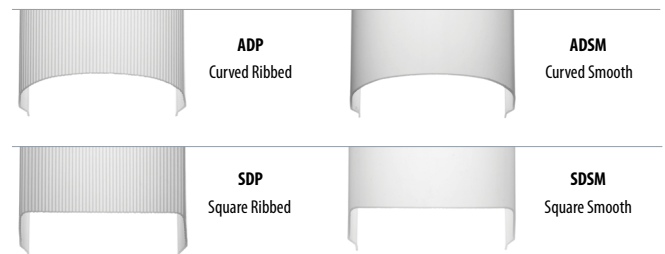
Depth: 2-3/8 (6.0)

Depth with Air supply/return: 2-3/4 (6.9)



All dimensions are inches (centimeters) unless otherwise specified.

Multiple Diffuser Options



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

2BLT Volumetric Recessed Lighting 2'x2'



A+ Capable options indicated by this color background.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: 2BLT2 33L ADP EZ1 LP835

2BLT2							
Series	Air function	Lumens ²		Diffuser	Voltage	Driver	Color temperature
2BLT2 2X2 BLT	(blank) Static A Air supply/ return ¹	Standard efficiency (>125 LPW)	High efficiency^{3,4} (>130 LPW)	ADP Curved, linear prisms ADSM Curved, smooth SDP Square, linear prisms SDSM Square, smooth Includes trim rings to match sensed version ADPT Curved, linear prisms ADSMT Curved, smooth SDPT Square, linear prisms SDSMT Square, smooth	(blank) MVOLT 120 120V 277 277V 347 347V ⁵	EZ1 eldoLED dims to 1% (0-10 volt dimming) GZ1 Dims to 1% (0-10V dimming) ⁶ GZ10 Dims to 10% (0-10V dimming) ⁶ SLD Step-level dimming ⁷	LP830 82CRI, 3000 K LP835 82CRI, 3500 K LP840 82CRI, 4000 K LP850 82CRI, 5000 K LP930 90CRI, 3000K LP935 90CRI, 3500K LP940 90CRI, 4000K LP950 90CRI, 5000K

nLight Interface		Control ¹¹		Options	
nLight Wired (blank) no nLight [®] interface N80 nLight with 80% lumen management N80EMG nLight with 80% lumen management For use with generator supply EM power ⁹ N100 nLight without lumen management N100EMG nLight without lumen management For use with generator supply EM power ⁹		nLight Wired (blank) No sensor control NES7 nLight™ nES 7 PIR integral occupancy sensor ¹² NESPDT7 nLight™ nES PDT 7 dual technology integral occupancy control ¹² NES7ADCX nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ¹² NESPDT7ADCX nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ¹²		Individual Control MSD7ADCX PIR integral occupancy sensor with automatic dimming control photocell ^{7,13} MSDPDT7ADCX PDT integral occupancy sensor with automatic dimming control photocell ^{7,13}	
nLight Wireless (blank) no nLight [®] interface NLTAIR2 nLight AIR Generation 2 enabled ¹⁰		nLight Wireless RES7 nLight AIR PIR integral occupancy sensor with automatic dimming photocell for Networking Capabilities ¹³ RES7PDT nLight AIR microphonics dual technology occupancy sensor with automatic dimming photocell ¹³ RIO nLight AIR radio module without sensor		EL7L 700 lumen battery pack (non-CEC compliant) ¹⁴ EL14L 1400 lumen battery pack (non-CEC compliant) ¹⁴ EL14LSD 1400 lumen battery pack with self-diagnostic testing feature (non-CEC compliant) ^{14,15} E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, CEC compliant ¹⁴ CP Chicago plenum ¹⁶ BGTD Bodine Generator Transfer Device ¹⁷ PWS1836 6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit PWS1846 6' pre-wire, 3/8" diameter, 18 gauge, 2 circuit PWS1846 PWSLV Two cables: one 6' pre-wire, 3/8" diameter, 18 gauge, 2 circuits; one 6' pre-wire, 3/8" diameter, 18 gauge, purple and gray ¹⁸ PWS1856LV 6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit w/low voltage purple and grey wires ¹⁸ GLR Fast-blowing fuse ¹⁹ GMF Slow-blowing fuse ¹⁹ NPLT Narrow pallet RRL__ RELOC [®] -ready luminaire ²⁰ LATC Earthquake clip DWAM Anti-Microbial paint JP32 Job packaging IP5X Gasketed diffuser compartment to meet IP5X rating ²¹	

Non-Configurable BLT

Stock/MTO	Catalog Description *	UPC	Lumens	Wattage	LPW	Color Temperature	Voltage	Pallet Qty
Stock	2BLT2 33L ADP LP835	00190887529708	3332	26	128	3500K/82 CRI	120-277	52
	2BLT2 33L ADP LP840	00190887529739	3385	26	130	4000K/82CRI	120-277	52
	2BLT2 33L ADP EL14L LP835	00190887529890	3332	26	128	3500K/82CRI	120-277	52
	2BLT2 33L ADP EL14L LP840	00190887529937	3385	26	130	4000K/82CRI	120-277	52
MTO	2BLT2 33L ADP 347 LP835		3332	26	128	3500K/82 CRI	347	52
	2BLT2 33L ADP 347 LP840		3385	26	130	4000K/82CRI	347	52

*Generic 0-10V Dimming to 10%.

Notes and Accessories next page

2BLT Volumetric Recessed Lighting 2'x2'

Notes

- 1

Consult factory for airflow data.
- 2

Approximate lumen output.
- 3

All versions may not achieve 130+ LPW. Refer to photometry on [www.acuitybrands.com](#).
- 4

Air supply/return option, 90 CRI, and versions with integral sensor trim rings may not achieve 130 LPW.
- 5

Not available with SLD EL7L, or EL14L options.
- 6

GZ1 and GZ10 not available with any Control or Sensor options
- 7

Not available with N80, N80EMG, N100, N100EMG, NLTAIR, or occupancy control.
- 8

Not available with controls, occupancy controls, or PWS options. Consult factory for Hi-Lume dimming.
- 9

nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
- 10

Must order with RES7, RES7PDT or Rio module. Must order with EZ1 driver.
- 11

Must specify diffuser with trim rings. See sensor options on page 4.
- 12

Requires N80, N80EMG, N100, or N100EMG.
- 13

Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate.
- 14

When using pre-wire option, use PWS1846 or PWS1846 PWSLV.
- 15

For more information, please see the [PSSD2 specification sheet](#).
- 16

Not available with N80, N80EMG, N100, or N100EMG.
- 17

Must specify voltage. Requires BSE labeling, voltage specific. Consult factory for options.
- 18

Not available with nLight wired/wireless network or individual controls.
- 19

Must specify voltage, 120 or 277, with GLR and GFM fusing.
- 20

For ordering logic consult [RRL_2013](#).
- 21

Not available with air supply/return or Wired Networking (NES_) and Individual Control (MSD_) sensors.

Accessories: Order as separate catalog number.	
DGA22	Drywall grid adapter for 2x2 recessed fixture
2X2SMK	Surface Mount Troffer Kit

nLight® Wired Control Accessories: Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight .			
WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODM [color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODM DX [color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD GFX [color]	Wall switch with raise/lower	nWSX PDT LV DX [color]
Photocell controls	Model number	Cat-5 cable (plenum rated)	Model number
Full range dimming	nCM ADCX RJB	10' cable	CAT5 10FT J1
		30' cable	CAT5 30FT J1

nLight® AIR Control Accessories: Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair .	
Wall switches	Model number
On/Off single pole	rPODB [color] G2
On/Off two pole	rPODB 2P [color] G2
On/Off & raise/lower single pole	rPODB DX [color] G2
On/Off & raise/lower two pole	rPODB 2P DX [color] G2
On/Off & raise/lower single pole	rPODBZ DX WH G2

rCMS¹										Example: RCMS PDT 10 AR G2	
Series / Detection		Power Supply¹		Occupancy Detection		Lens (Required)		Operating Mode		Generation	
RCMS	nLight AIR occupancy and daylight sensor	[blank]	Power Supply ordered separately	[blank]	PIR Detection PDT Dual Tech PIR/ Microphonics	10	Large Motion/ Extended Range 360°	[BLANK]	None AR Auxiliary Relay	G2	Generation 2 compatibility
		PS 150	Standard 150 mA Power Supply			9	Small Motion/ Extended Range 360°				
						6	High Bay 360° Lens				

Replacement Parts: Order as separate catalog number.		
*247WJV	2DBLT24 ADP LENS ASSEMBLY	2 ft. replacement lens
*249P2P	2DBLT24 SDP LENS ASSEMBLY	2 ft. replacement lens
*249P2W	2DBLT24 ADSM LENS ASSEMBLY	2 ft. replacement lens
*249P32	2DBLT24 SDSM LENS ASSEMBLY	2 ft. replacement lens
*237LT1	2DBLT24 ADPT LENS ASSEMBLY	2 ft. replacement lens
*237LT3	2DBLT24 SDPT LENS ASSEMBLY	2 ft. replacement lens
*237LT5	2DBLT24 ADSMT LENS ASSEMBLY	2 ft. replacement lens
*237LT7	2DBLT24 SDSMT LENS ASSEMBLY	2 ft. replacement lens
*237LT9	2DBLT24 ADPT SENSOR LENS ASSEMBLY	2 ft. replacement lens
*237M4Y	2DBLT24 SDPT SENSOR LENS ASSEMBLY	2 ft. replacement lens
*237M57	2DBLT24 ADSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens
*237M5H	2DBLT24 SDSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens

Notes

- 1

RCMS requires low voltage power from either RPP20 DS 24V G2 or PS150.



2BLT Volumetric Recessed Lighting 2'x2'

Sensor Options				
Option	Automatic Dimming Photocell	Occupancy Sensing		nLight Wired Networking
		PIR	PDT	
MSD7ADCX	X	X		
MSDPDT7ADCX	X		X	
NES7		X		X
NES7ADCX	X	X		X
NESPD7			X	X
NESPD7ADCX	X		X	X
RES7	X	X		
RESPDT7	X	X	X	

Integrated Sensor with Individual Control

The MSD7ADCX PIR occupancy sensor/automatic dimming photocell is ideal for areas without obstructions and where daylight harvesting may be desired. Suggested applications include, but not limited to, hallways, corridors, storage rooms, and breakrooms or other areas where people are typically moving.

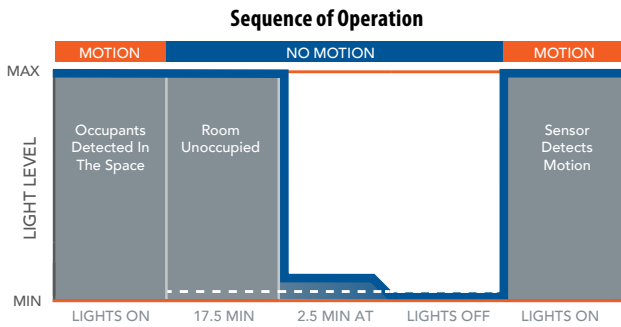
The MSDPDT7ADCX PIR/Microphonics Dual Tech occupancy sensor/automatic dimming photocell is ideal for areas with obstructions and where daylight harvesting is desired. Suggested applications include, but not limited to, open offices, private offices, classrooms, public restrooms, and conference rooms.



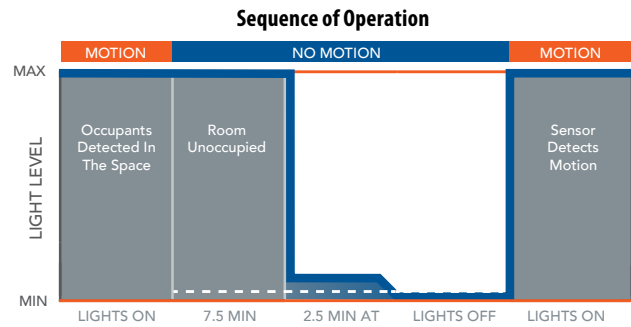
nLight Wired Networking

The nES 7 is ideal for small rooms without obstructions or areas with primarily walking motion. Ideal areas include hallways, corridors, storage rooms, and breakrooms. Additionally, the NES7ADCX includes an integrated photocell, which enables daylight harvesting controls.

For areas like restrooms, private offices, open offices, conference rooms or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. The nES PDT 7 utilizes both PIR (passive infrared) and Microphonics technologies to detect occupancy. Additionally, the NESPD7ADCX includes an integrated photocell, which enables daylight harvesting controls which is ideal for areas where windows are present.



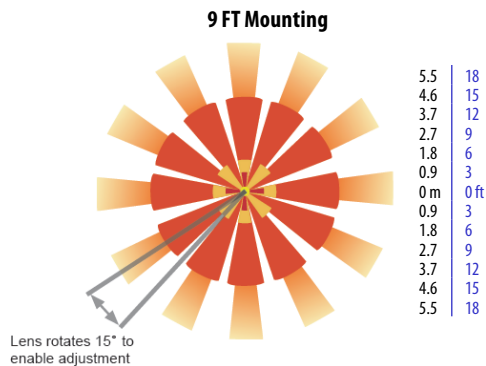
*The presetting on the automatic dimming photocell is 5fc.



*The presetting on the automatic dimming photocell is 5fc.

Sensor Coverage Pattern Mini 360° Lens

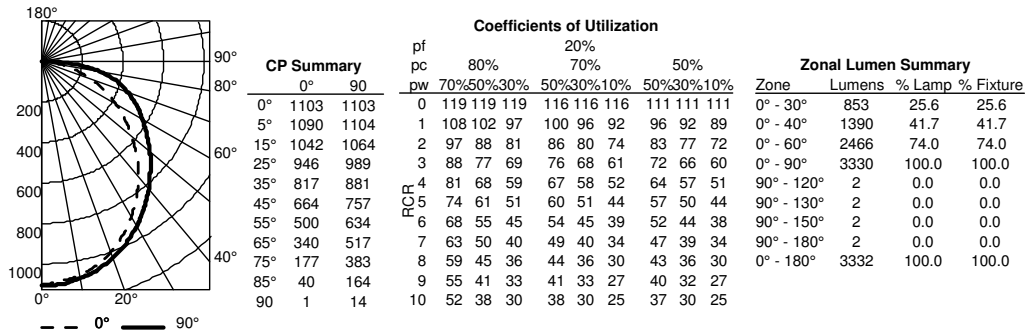
- Recommended for walking motion detection from mounting heights between 8 ft (2.44 m) and 20 ft (6.10 m)
- Initial detection of walking motion along sensor axes at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m).
- Provides 12 ft (3.66 m) radial detection of small motion when mounted at 9 ft (2.74 m)
- Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor



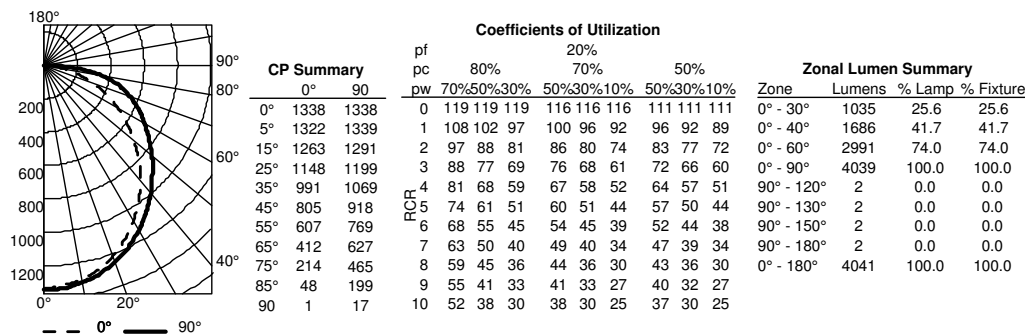
2BLT Volumetric Recessed Lighting 2'x2'

PHOTOMETRICS

2BLT2 33L ADP LP835, 3332 delivered lumens, test no. ISF36900P19, tested in accordance to IESNA LM-79

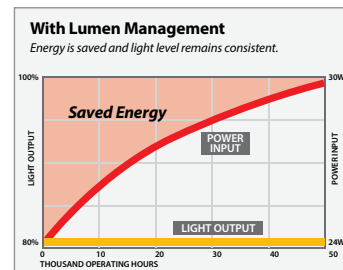
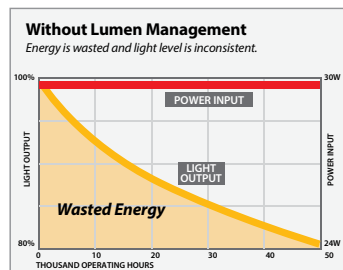


2BLT2 40L ADP LP835, 4041 delivered lumens, test no. ISF36900P35, tested in accordance to IESNA LM-79

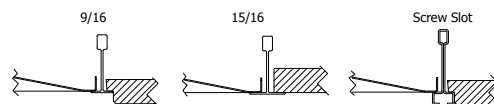


Constant Lumen Management

Enabled by the embedded nLight control, the BLT actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.



MOUNTING DATA	
Ceiling Type	Appropriate Trim Type
Exposed grid tee (1' and 9/16")	G
Concealed grid tee	G
Plaster or plasterboard	G*



*DGA accessory available to provide ceiling trim flange and fixture support for plaster or plasterboard ceiling. Recommended rough-in dimensions for DGA installation is 24-3/4" x 24-3/4" (Tolerance is +1/8", -0").

How to Estimate Delivered Lumens in Emergency Mode

Use the formula below to estimate the delivered lumens in emergency mode

$$\text{Delivered Lumens} = 1.25 \times P \times \text{LPW}$$

P = Output power of emergency driver. P = 10W for E10WLCP option.

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet. LPW = Lumen per watt rating of the luminaire. LPW information available in Performance Data section.

2BLT Volumetric Recessed Lighting 2'x2'

Performance Data					
Material	Lumens	LPW	Watts	DLC Listing	DLC ID
2BLT2 20L ADP E21 (GZ10) LP835 (ALL OPTIONS)	2033.0	126.6	16.1	Premium	P6445UVD
2BLT2 20L ADPT E21 (GZ1, GZ10) LP835 (ALL OPTIONS)	2016.0	124.8	16.2	Premium	PWKFSHGQ
2BLT2 20L ADP E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	2065	124.1	16.6	Premium	PM92196A
2BLT2 20L ADPT E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	2038.0	126.9	16.1	Premium	PYX15QEQ
2BLT2 33L ADP LP835	3332.0	124.9	26.7	Premium	PQXU3PWX
2BLT2 33L ADP E21 (GZ1, GZ10) LP835 (ALL OPTIONS)	3332.0	124.9	26.7	Premium	PHSXHE8F
2BLT2 33L ADPT E21 (GZ1, GZ10) LP835 (ALL OPTIONS)	3287.0	125.1	26.3	Premium	PTKZR9WQ
2BLT2 33L ADP LP840	3385.2	126.9	26.7	Premium	PPWS1PPC
2BLT2 33L ADP E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	3385.0	126.9	26.7	Premium	PD18CKQ8
2BLT2 33L ADPT E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	3340.0	125.2	26.7	Premium	PF98CZ2H
2BLT2 40L ADP E21 (GZ1, GZ10) LP835 (ALL OPTIONS)	4041.0	127.4	31.7	Premium	P1XWW9GV
2BLT2 40L ADPT E21 (GZ1, GZ10) LP835 (ALL OPTIONS)	3987.0	125.7	31.7	Premium	P1XWW9GV
2BLT2 40L ADP E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	4105.0	129.4	31.7	Premium	PHCQ2CQF
2BLT2 40L ADPT E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	4050	127.65	31.7	Premium	PSYYDAA8

DLC information is subject to change, for the most up-to-date information please refer to www.dlc.org. Above listings do not cover 347v or SLD.

HE Performance Data					
Material	Lumens	LPW	Watts	DLC Listing	DLC ID
2BLT2 20LHE ADP E21 (GZ1, GZ10) LP835 (ALL OPTIONS)	1948.0	130.6	14.9	Premium	PUQCZNQI
2BLT2 20LHE ADPT E21 (GZ1, GZ10) LP835 (ALL OPTIONS)	1901.0	130.0	14.6	Premium	PQXK6498
2BLT2 20LHE ADP E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	1979	132.7	14.9	Premium	PJCZR21
2BLT2 20LHE ADPT E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	1952.0	130.9	14.9	Premium	PLC4RF4L
2BLT2 33LHE ADP E21 (GZ1, GZ10) LP835 (ALL OPTIONS)	3392.0	137.3	24.7	Premium	PXXZN9PH
2BLT2 33LHE ADPT E21 (GZ1, GZ10) LP835 (ALL OPTIONS)	3346.0	135.5	24.7	Premium	PZC8BZSS
2BLT2 33LHE ADP E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	3446.0	139.5	24.7	Premium	PKPJYYRF
2BLT2 33LHE ADPT E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	3400.0	137.6	24.7	Premium	PM5G8AFU
2BLT2 40LHE ADP E21 (GZ1, GZ10) LP835 (ALL OPTIONS)	4118.0	133.7	30.8	Premium	PJ55XFFP
2BLT2 40LHE ADPT E21 (GZ1, GZ10) LP835 (ALL OPTIONS)	4063.0	131.9	30.8	Premium	P8E16E9B
2BLT2 40LHE ADP E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	4183.0	135.9	30.8	Premium	PEGFHPZD
2BLT2 40LHE ADPT E21 (GZ1, GZ10) LP840 (ALL OPTIONS)	4128	134.04	30.8	Premium	PFSSSSVG

DLC information is subject to change, for the most up-to-date information please refer to www.dlc.org. Above listings do not cover 347v or SLD.